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Wright shares in NSF grant supporting women scientists

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Students respond to Knight's balanced approach

Known as one of the most difficult classes at Furman, Physical Chemistry challenges students to test the limits of their abstract thinking skills. As one student puts it, "Even the basic principles of quantum physics are enough to make the most brilliant chemistry student's head spin."

Yet every year Lon Knight, Charles Ezra Daniel Professor of Chemistry, engages his students and helps them prove to themselves that they are capable of mastering the course material.

"It's about finding analogies that work, that students can understand," says Knight, a recipient of the Alester G. Furman, Jr., and Janie Earle Furman Award for Meritorious Teaching for 2005-06. "If you develop some basic understandings with some positive feedback, then you can keep students from being discouraged. Then you can begin to harvest their potential."

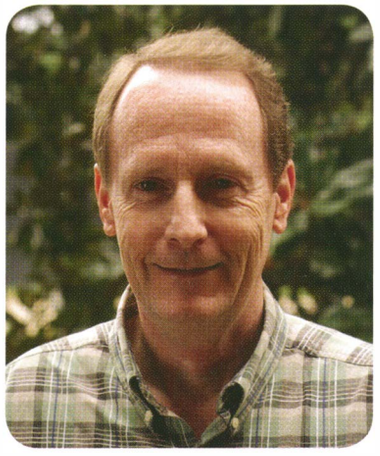
When illustrating particle movement and photon bombardment, some of Knight's favorite analogies employ the principles of racquetball and Ping-Pong — which happen to be among his hobbies. Nearly all students who spend any time with Knight realize that he's almost unbeatable in Ping-Pong. He is, in fact, a multiple winner of the Ping-Pong tournament contested annually by faculty and students participating in the department's summer research program.

Knight's students respond enthusiastically to his ability to strike a balance between the intensity of the classroom and lab and lighthearted extracurricular activities. They're also impressed by his mechanical acumen. His boyhood interest in ham radios and everything electronic has served him well in his career, as he oftentimes builds the lab equipment he needs to conduct specific experiments.

Having taught at Furman since 1971 and served as department chair since 1981, Knight says, "I think early on my goals were focused on establishing my reputation as a scientist and at the same time taking classroom preparation seriously. I realized later that the two were not so independent. Staying active as a scientist is very much related to being a good teacher."

His students concur. One student who nominated Knight for the teaching award wrote that working in Knight's lab "has been the most profound engaged learning experience of my academic career." The student felt overwhelmed at the start of a summer research project but points out, "Dr. Knight believed that I would be working very independently by the end of the summer, and I was."

Students also admire Knight's ability to shift easily from solving technical problems in the lab to providing practical advice on everything from course schedules to graduate and professional school choices.



Not one to be overly philosophical about his work or the impact of his teaching, Knight offers a concise explanation of what has worked for him through the years: "Put your effort in and keep your enthusiasm up, and you will accomplish your goals."

— JASON STRAND '04

Wright shares in NSF grant supporting women scientists

Laura Wright, who has taught chemistry at Furman since 1983, is one of four women chemists sharing a $500,000 grant from the National Science Foundation to support the advancement of senior women scientists at liberal arts colleges.

The three-year, NSF ADVANCE Partnership for Adaptation, Implementation and Dissemination Award will support a collaborative research effort to establish mentoring alliances of senior women scientists.

Wright's colleagues in the project are Kerry Karukstis of Harvey Mudd College, Bridget Gourley of DePauw University and Miriam Rossi of Vassar College.

"There are so few women scientists in the upper ranks of our colleges that it is important to find ways to enhance the careers of these women," Wright says. "This will allow them to become better role models for the women who are beginning their careers in academia as well as for the female students who are trying to evaluate whether they want to pursue a career in science."

One major objective of the project is to facilitate the advancement of senior women scientists at liberal arts colleges to the highest ranks of academic leadership. Wright says that the proposed horizontal mentoring alliances will directly impact the career development of 20 women faculty members.